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NEW CICADAS FROM NORTH AMERICA AND THE WEST INDIES

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Owing to the uncertainty of getting specimens, the Cicadidæ were the last group of large and conspicuous insects in North America to receive more than passing attention from entomologists. Some species are still known from but one or two individuals, and no recently collected examples of others have been seen by the writer for a number of years. Some of these, while large and conspicuous, have a rather restricted distribution. Then there is the fact that their life cycle is not known except in *Magicicada*, leaving it a matter of uncertain fortune as to whether they are found or not even when their known habitats are visited. It will be some years before there are sufficiently large collections so that the species from each of the states can be definitely listed as they have been in a few of the smaller eastern and central states. It will also take some years to acquire an accurate knowledge of the status of many of the forms, which can finally be accomplished by observing them in life; the plants that they prefer if any; their songs, their associations and general behavior.

In the preparation of the present article, I am indebted to Mr. Paul W. Oman of the U. S. National Museum and to August Busck and H. S. Peters, who collected a number of the specimens received from that museum; to Mr. W. E. China for making numerous comparisons with cicadas in the British Museum; to Dr. Raymond H. Beamer of the University of Kansas, and to the State College

of Washington at Pullman, for cicadas from the northwest; to Prof. H. Frere Clement and Brother Chrysogone for numerous specimens from Cuba; to Mr. and Mrs. John L. Sperry, to Arthur T. McClay, as well as to Warren Condit for taking photographs, and to Mrs. Muriel Mattocks Cleaves for drawing the text figures.

Fidicina panamensis new species (Plate II, Fig. 2)

Type male and allotype female from Tabernilla, Canal Zone, Panama, May, 1907 (Aug. Busck collector). Collection, U. S. Nat. Museum.

Resembles *Fidicina compostela* Davis (Plate II, Fig. 1) described and figured in the JOURNAL, NEW YORK ENTOMOLOGICAL SOCIETY, March, 1934, in color, and in the considerable amount of brown at the base of both fore and hind wings, but is generally smaller, eyes not as prominent and with the front of the head more evenly and symmetrically rounded. The sides of the pronotum are fringed with many rather evenly placed short bristles, not present in *compostela*, but found in *viridifemur* from Brazil. The forward extension of the tymbal covers are rather sharply pointed in *compostela*, and more inwardly curved with a rounded extremity in *panamensis*. Opercula short and truncate with the outer and lower margins less sinuate than in *compostela*. Last ventral segment gradually rounded to the extremity, which has a shallow notch in the male; in the female the notch is of considerable size. Underside of the abdomen with the segments somewhat translucent, permitting in the males, and under strong light, of an indistinct view of some of the interior structures. Underside of the body including the valve with numerous hairs. Uncus as figured.



Fidicina panamensis

Body of a general brown color. Head greenish orange with the black band connecting the eyes narrower than in *compostela*. Pronotum nearly a uniform, pale, brownish green, with the fore margin irregularly blackened, and the hind margin or collar greener. Mesonotum of the same color as the pronotum, with four nearly black obconical spots extending backward from the front margin; inner pair about half the length of the outer pair. Cruciform elevation brownish green with an irregular dark spot in the hollow between the anterior limbs. Abdomen with the segments inconspicuously black anteriorly, edged with brown posteriorly, and with areas of golden pubescence, particularly on the sides. Legs pale orange. Both pairs of wings clear ex-

cept at base, where they are irregularly browned and chestnut colored. Basal area opaque but not as strongly so as in *compostela*.

MEASUREMENTS IN MILLIMETERS

	Male Type	Female Allotype
Length of body	23	22
Width of head across eyes	9	9
Expanse of fore wings	72	75
Greatest width of fore wing	11	11
Greatest width of operculum	5

In addition to the type and allotype, 14 males and 3 females, collected at Tabernilla, Canal Zone, Panama, from April 27 to June 1, 1907, by Mr. Busck, have been examined, also a single female collected by Mr. Busck at Port Bello, Panama, April 21, 1912. Mr. W. E. China stated in commenting on the specimen sent for comparison in the British Museum that what we here call *panamensis* is related to *F. viridifemur* Walker, as well as to *F. compostela* Davis.

Genus *Uhleroides*

There are five species of cicadas in Cuba that resemble one another in size, in being generally green or greenish in color, and in having the bodies and fore wings marked with fuscous. *Uhleroides cubensis* Distant, described in 1912 and figured in Genera Insectorum, 1914, plate 2, is the type of the genus, and while the tympanal coverings are conspicuous in *cubensis* and distinguish it, the females of all the five species bear a striking resemblance to one another. The shape of the male uncus is so nearly uniform that it does not provide a ready means by which the species may be separated.

Mr. W. E. China has kindly compared specimens sent to him with cicadas in the British Museum, and suggests that all of them be placed in the genus *Uhleroides*. Two of them have been placed in the genus *Odopœa* in Distant's catalogue in 1906, but in *dilatata* Fabricius, the type of that genus, the pronotum is greatly expanded at the sides and extends forward close to the eyes. The abdomen of the female is more parallel sided than in *Uhleroides*,

and more suddenly or abruptly attenuated toward the extremity. In *Uhleroides* the abdomen of the female tapers gradually.

Uhleroides chariclo Walker, was described in 1850, and is the *Proarna chariclo* of Distant's catalogue of 1906. The original description contains the statements: "hind scutcheon [collar] narrow above widened and almost angular above the base of the fore wing," and "fore thighs armed with three teeth, the first rather long, very oblique, second of moderate size, third rather small." The size given is length of body 9 lines, expanse of wings 28 lines.

One hundred and two males and 50 females, collected by Brother Chrysogone in Pinar del Rio province, western Cuba in June, July and August, have the sides of the pronotum rounded or "almost angular" in all but one, which has the sides noticeably angulated. The fore thighs are armed as described. The tympanal coverings are pointed at the extremity in this small and greenish species. In "Histoire De Cuba, La Sagra," Guerin states that Walker had but a single male when he drew up the description of *chariclo*, and that he personally had seen no examples of the species.

Uhleroides walkeri Guerin was described in 1857, and is the *Odopæa walkeri* of Distant's catalogue. The original description states that the sides of the prothorax are: "acutely dilated" and "form an acute angle at the middle." Also that the anterior femora are: "bidentate beneath." The length is given as 19 and the spread as 57 millimeters. Guerin noted a considerable variation in the four specimens seen by him from Cuba.

As in *chariclo* there is usually a small third spine on each of the anterior femora, which must have been overlooked by Guerin. In 89 specimens from Holguin, Guantanamo, and the Sierra Maestra near Santiago de Cuba, all in eastern Cuba, the prothorax is acutely dilated at the sides, and the tympanal coverings are pointed. The spread of wings may vary from 60 to 70 millimeters.

The accumulation of additional specimens from intermediate localities may show that two species are here included under *walkeri*. Both it and *chariclo* were recognized by Uhler, 1892, in: "Preliminary Survey of the Cicadidæ of the United States, Antilles and Mexico."

Uhleroides sagræ Guerin was described in 1857, and appears in Distant's catalogue next to *walkeri*. It is described as yellowish green variegated with black, prothorax green at the sides and behind; rounded and not with an acute angle at the middle as in *walkeri*. The length is given as 24 to 28 and the spread as 78 millimeters. It is said to be much larger than *walkeri* and to have the anterior femora "unidentate beneath."

In a considerable series of 292 specimens from western Cuba collected in July and August by Brother Chrysogone, a single male was found with the sides of the pronotum angulated, while several showed a slight angulation. The fore femora may occasionally be armed with three spines as in the other species. Three females from Baracoa in Oriente province, extreme eastern Cuba, have the sides of the pronotum unangulated and much less dilated at the anterior angles than in the western specimens. *Sagræ* is usually much larger than the four other species of *Uhleroides* from Cuba here considered, some reaching a spread of wings of 85 millimeters. Also the fore wings are usually more heavily spotted. The tympanal coverings are ample, with the forward projection rounded at the extremity and not pointed as in the generally smaller and usually greener species already mentioned.

Uhleroides cubensis Distant, was described in Ann. and Magazine of Natural History, S. 8, Vol. IX, 1912, from a male and figured in "Genera Insectorum," 1914, plate 2. *Cubensis* may be told by having the "tympanal coverings globose and projecting beyond the lateral margins of the abdomen, outwardly complete, the orifices only exposed inwardly," as mentioned in the original description. It has the base of all of the wings plainly brownish or chestnut colored (ochraceous in original description), while in *chariclo*, *walkeri*, *sagræ*, and the new species here described, the color is gray and white. "Abdomen beneath piceous, the lateral margins broadly ochraceous" according to original description, but in the 19 males in the writer's collection from western Cuba, the abdomen beneath has a piceous stripe, while the lateral margins are broadly pruinose.

In eastern Cuba there appears to be a separate species allied to *cubensis* and here described as new.

***Uhleroides mæstra* new species (Plate II, Fig. 3)**

Type male from near Santiago de Cuba, July, 1938 (H. Frere

Clement), and allotype, female, Loma del Gato, Oriente, Cuba, August, 1939. Davis collection.

Sides of the pronotum expanded less than in *cubensis*, especially at the anterior angles. The tymbal covers, though ample as in *cubensis*, are less globose and do not project as far beyond the lateral margins of the abdomen.

The general color is greenish with less pale brown than in *cubensis*, and the greenish tymbal covers without the fuscous marks at the apical angles. The fuscous marks on the head and pronotum (which has a green collar), as well as on the mesonotum, are arranged as in the other species of the genus known from Cuba. Beneath greenish, lacking the broad fuscous central stripe with pruinose margins found in *cubensis*. First, second and third cross veins of the fore wings are infuscated, and there is a row of marginal spots, one at each vein. Both fore and hind wings gray and white at base, as in *chariclo* and *walkeri*, and not brownish or chestnut colored as in *cubensis*.

MEASUREMENTS IN MILLIMETERS

	Male Type	Female Allotype
Length of body	18	18
Width of head across eyes	6	6.5
Expanse of fore wings	55	60
Greatest width of fore wing	8	8
Greatest width of operculum	5	...

In addition to the type and allotype a larger male paratype with wings expanding 63 millimeters, collected at the same place and date as the type, is in the writer's collection, as well as a male and female from Loma del Gato, collected in August, 1939. A very large male with wings expanding 70 millimeters, from the upper Ovando river, eastern Oriente, July, 1936 (Darlington) is in the collection of the museum of Comparative Zoology.

Uhleroides hispaniolæ new species (Plate II, Fig. 4)

Type male and allotype female, San Francisco Mountains, St. Domingo, W. I., September, 1905 (August Busek) U. S. National Museum.

Resembles in size and greenish color *Uhleroides walkeri* from eastern Cuba, but lacks the acute angle at the dilated sides of the pronotum. The tymbal covers have the forward projection broad and more evenly rounded at the forward extremity than in *sagræ*, and without the sinuation on the inner side found in that species—they are not acutely pointed as in *walkeri*.

The tymbals are exposed on the inner side only and the covers do not protrude beyond the sides of the abdomen. The front of the head evenly rounded and about as broad as the front of the pronotum. Anterior femora armed with three spines, the central one prominent. The opercula short and rounded as in *sagræ*, *walkeri* and *cubensis*, but with the inner extremities slightly overlapping.

The pronotum has the collar green with the fuscous marks on it, as well as on the head and mesonotum, arranged as in the several Cuban species of *Uhleroides*. Like *walkeri* the central oboconical marks on the mesonotum are more prominent than in *sagræ* and *chariclo*. The tergum of the abdomen is brownish, each segment margined posteriorly with green, and there are two rows of spots which converge and become blended together as the end of the



Uhleroides hispaniolæ

abdomen is approached. Beneath, greenish, and spotted with fuscous as in other members of the genus. First, second and third cross veins of the fore wings are infuscated and there is a row of marginal spots, one at each vein, while between the veins and running parallel to them, there are pale infuscated lines also present in the paratypes. The allotype has the margin of the fore wings clouded.

MEASUREMENTS IN MILLIMETERS

	Male Type	Female Allotype
Length of body	21	20
Width of head across eyes	7.5	7
Expanse of fore wings	65	65
Greatest width of fore wing	9	9
Greatest width of operculum	5

In addition to the type a male paratype from the Distant collection in the British Museum has been sent by Mr. W. E. China. It is labeled St. Domingo, and is like the type. In both it and the type, on account of injury, the uncus cannot be figured or described. In the U. S. National Museum there are also two female

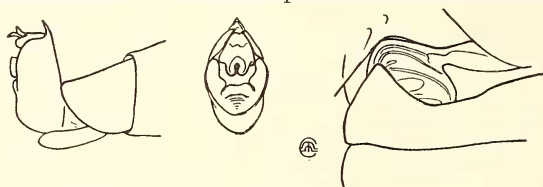
paratypes labeled St. Domingo, W. I., August (Aug. Busck collector).

Uhleroides samanae new species (Plate II, Fig. 5)

Type male, San Francisco Mountains, St. Domingo, W. I., September, 1905 (August Busck). U. S. National Museum.

Resembles in general appearance *U. hispaniolæ*, but the tymbals are exposed on both the inner and outer sides, the forward projection of the cover being narrowed into a rather acute point as in *walkeri* of eastern Cuba. The dilated sides of the pronotum are not sharply angulated as in *walkeri*, but are more evenly rounded, as in *hispaniolæ*, or the much larger *sagræ*. It differs from all the species of *Uhleroides* so far examined in having the ends of the horse-shoe shaped uncus bent inward and touching; in the other species, the extremities are separated. Males of *hispaniolæ* with the uncus complete, have not been available. Front of the head evenly rounded, and about as broad as the front of the pronotum. Anterior femora armed with three spines, the central one prominent and the third very small. The opercula short and rounded with the inner extremities not touching as in *hispaniolæ*.

Pronotum green, with the grooves in front of the collar fuscous. The central pair of obconical marks on the mesonotum prominent and touching at the base; the outer pair broken and about half as long as the inner pair. A fuscous spot each side of the X, and an inner pair of spots included between its forward extremities. The anterior portion of the mesonotum pale brown;



Uhleroides samanae

posterior about the X greener. The tergum of the abdomen brownish, each segment margined posteriorly with green. Beneath greenish. First and second cross veins of the fore wings but slightly infuscated; the row of marginal spots, one at each vein, are but faintly represented and no pale parallel lines between the veins.

MEASUREMENTS IN MILLIMETERS

	Male Type
Length of body	24
Width of head across eyes	8
Expanse of fore wings	70
Greatest width of fore wing	10
Greatest width of operculum	6

In addition to the type, there is in the collection of the U. S. National Museum, a broken female labeled: "Port-au-Prince, Haiti, Nov. 26, 1928," that appears to belong to this species.

A NEW CICADA FROM THE BAHAMA ISLANDS

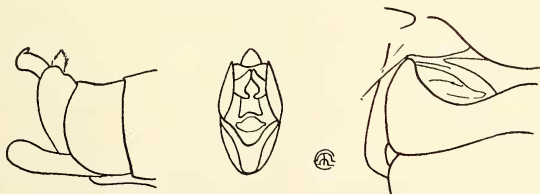
In the U. S. National Museum there are six cicadas collected in July and August, 1930, by H. S. Peters, that appear to belong to the same species although from five different islands of the Bahama group, British West Indies. Through the courtesy of Mr. Paul W. Oman I sent a specimen to the British Museum for comparison, and Mr. W. E. China stated that it was apparently an undescribed species. Owing to the broad head it is here considered under *Ollanta* rather than under *Proarna*, to which it is also related, particularly in venation. In *Proarna* the head across the eyes is narrower than the anterior margin of the pronotum (See JOURNAL, NEW YORK ENTOMOLOGICAL SOCIETY, March, 1928, plate 1).

Ollanta caicosensis new species (Plate II, Fig. 6)

Type male, South Caicos Island, British West Indies, July 29, 1930 (H. S. Peters). U. S. National Museum.

Head broader than the anterior margin of the pronotum, but the front not quite as produced as in *Ollanta mexicana* and *O. modesta* from Central America. Tymbals exposed on the inner side only; the forward extension of the covers ending in a blunt and rounded point, not as pointed as is usual in *Proarna*. Opercula short and rounded, but with the extremities somewhat truncated. The interior angles not touching, but nearly touching in some of the paratypes.

General color pale brownish, somewhat greenish on the pronotum. Head with a narrow, irregular black band across the front at the antennæ, and a much broader band between the eyes in which the ocelli are included. Pronotum with the grooves blackened, and a black spot centrally at the margin of the collar. Collar with a fuscous spot each side at the anterior angles. Pronotum with the central pair of obconical spots about half as long as the



Ollanta caicosensis

outer pair which are composed of lacerated spots. Two distinct spots between the anterior limbs of the X. Abdomen with about the basal half of each segment black; blackened at the base in the region of the tympana, and covered generally with an appressed pubescence.

Beneath pale and pruinose, the front with the transverse rugae somewhat blackened. Legs, opercula and abdomen straw-colored, the last the darkest. Fore wings with the venation pale; first, second and third cross veins infuscated, and the veins at the marginal areas heavily infuscated near their extremities. Close to the outer margin of each fore wing there are six or seven small fuscous spots, one between each of the veins at the outer limit of the marginal area. The basal area is clear, and the basal membranes of both pair of wings are almost white. Some species of *Proarna* have the fore wings spotted as here described but to a much less degree.

MEASUREMENTS IN MILLIMETERS

	Male Type
Length of body	22
Width of head across eyes	8
Expanse of fore wings	59
Greatest width of fore wing	8.5
Greatest width of operculum	4

In addition to the type there are five male paratypes labeled as follows: Acklin's Island, July 9, 1930; E. Caicos Island, July 27, 1930; S. Caicos Island, July 29, 1930; W. Caicos Island, August 4, 1930, and Great Inagua Island, August 9, 1930, all collected by H. S. Peters. When larger collections are made it will probably be found that the cicadas from each of the several islands show some slight differences. The male from Great Inagua Island is most unlike the others, and it is the most distant island.

Psallodia espinii Uhler (Plate II, Fig. 9)

In his paper "A New Cicada from Hayti," Trans. Maryland Acad. of Sciences, 1903, p. 18, Uhler states in the original description of the genus and species: "Two male specimens of this neat little species were secured for me in the vicinity of Port de Paix, Hayti, by Dr. Joseph Espin."

In the collection of the U. S. National Museum the writer has examined a male labeled: "*Psallodia espinii* Uhler, Haiti Det. Uhler," and a male: "Port de Paix, Haiti." There can be no

doubt but what these are the two males referred to by Uhler, and the first mentioned can be considered the type of the genus *Psallodia*, and of the species *espinii*, as described by him in 1903.

Under *Melampsalta*, on page 163 of his catalogue of 1906, Distant states: "*Psallodia*, Uhler, apparently belongs to this division, but I have not seen a specimen." While Uhler stated that *Psallodia* is: "Similar in form to *Melampsalta* Stal," he also recorded: "basal areole long, narrow, attached to radial vein beyond the base, emitting the two approximate ulnar veins diagonally from the outer angle." Emitting two approximate ulnar veins precludes it from *Melampsalta*, where the median and cubitus veins unite near base of fore wing and reach the basal cell or areculus as a single vein. The lower ulnar vein (cubitus) is remarkable for its upward arch or bend in *espinii*, found to like degree in few cicadas. The manner in which it and the median vein join the basal cell, is as in the genus *Taphura*, and it is likely that *Psallodia* should be placed near that genus. A dorsal spine terminates the abdomen in both the male and female of *Psallodia espinii*, as is also the case in *Taphura* to be found in Barro Colorado Island, Canal Zone; in Venezuela, Brazil, Paraguay, and elsewhere in South America.

Psallodia espinii is represented in the writer's collection by a male, here figured, and a female, both from Post Chaubert, Le Trou, Haiti, June 4, 1927 (G. N. Wolecott).

Okanagana fumipennis Davis

This distinct species was described and figured in the JOURNAL, NEW YORK ENTOMOLOGICAL SOCIETY for June, 1932. It was recorded from Colorado, New Mexico and Utah, as occurring on sage brush and juniper.

On June 21, 1937, Mr. John L. Sperry and Mrs. Sperry found a single colony of *fumipennis* 35 miles north of Williams, Coconino County, Arizona, on the Grand Canyon road. The cicadas were singing and found in but one area. They were on low scrub one to two and a half feet high among rather scattered cedars, but the cicadas were all in low brush. "I tried at the time to identify the brush," writes Mr. Sperry, "but did not recognize the dead bushes in which we found the cicadas."

This adds Arizona to the known distribution of *fumipennis*, which, while resembling *Okanagana schaefferi*, may be separated by its thickened venation and by having the wings milky and clouded.

OKANAGANA LURIDA AND RELATED SPECIES

Okanagana lurida Davis was described and figured in the JOURNAL, NEW YORK ENTOMOLOGICAL SOCIETY, September, 1919, from a single male collected at Pullman, Washington (C. V. Piper), and later the type was placed in the collection of the U. S. National Museum. In the same JOURNAL for June, 1936, additional specimens of *lurida* are recorded. Lately Mr. Paul W. Oman has sent several from the collection U. S. National Museum for examination. They came from Pullman, Wawawai, Steilacoom and Yakima in Washington, and one was collected in Oregon. While these were being examined I received, through the courtesy of Dr. Raymond H. Beamer, fifty specimens collected at Pullman, Washington, in June, July and August; one without locality label, and one from Wawawai. They were from the collection of the State College of Washington located at Pullman. I have also examined a male *lurida* from Moscow, Idaho, July 8, 1937 (T. A. Brindley), collection University of Kansas. It appears from this series that *lurida* inhabits the water-shed of the Snake River and vicinity.

As was stated in the original description *lurida* resembles in color *Okanagana vandykei* Van Duzee, known from California and Oregon, but is smaller and differs in the shape of the uncus. It also resembles *Okanagana ferrugomaculata* from California and Oregon, but the wings are narrower in that species, which also has a differently shaped uncus as figured in this JOURNAL, June, 1936, p. 110. In size and some other characters *lurida* more nearly resembles the pale examples of *Okanagana occidentalis* and *Okanagana bella*. As in *occidentalis* there are usually many very short bristly hairs on the head, but the lateral margins of the pronotum are very rarely black. I have seen but one specimen so colored. The pronotum is usually edged all around with pale as in *bella*, and the notch in the last ventral segment of the female is often as in *bella* without an inner notch present in *occidentalis*. In some specimens there are indications of an inner notch. In its size and

pale venation, *Okanagana arboraria* Wymore, from California, resembles *lurida*, but the front of the head is much less prominent, as is also the case in *O. ornata* Van Duzee.

***Okanagana yakimaensis* new species (Plate II, Fig. 7)**

Type male, Yakima, Washington, July 10, 1903. Collection, State College of Washington, Pullman, Washington.

A dull straw-colored insect with the front of the head protruding but more evenly rounded in front than in *lurida*, *bella* or *occidentalis*.

Head narrow; hairy both above and beneath and eyes not prominent. The uncus as figured. Color almost entirely dull straw-color. Head straw-color, eyes darker; pronotum straw-color, a dark spot each side at the extremity of the collar; mesothorax uniformly straw-color with an indistinct dark spot



Okanagana yakimaensis

in the hollow each side of the lower limbs of the X; tergum straw-color, with a short and dull colored dark mark each side on segments 3 to 7. Uncus and valve pale and hairy. Abdomen, beneath hairy, straw-colored, with the usual dark area at base. The venation of the wings uniformly pale, with the membranes at base of both pair pale pink, and of the same color as in the palest examples of *lurida*. The front wings have a basal dark dot, present in some other pale winged *Okanagana*.

MEASUREMENTS IN MILLIMETERS

	Male Type
Length of body	24
Width of head across eyes	6.5
Expanse of fore wings	60
Greatest width of fore wing	10
Length of valve	3

A paratype collected at the same place (North Yakima now known as Yakima) as the type, is in the writer's collection, and is like the type.

In April, 1920, a male *Okanagana* in the collection, Museum of Comparative Zoology, Cambridge, Massachusetts, labeled:

"Yakima City, W. T., July 2-4, 1882," was examined and photographed. At that time the following memorandum was made: "Almost wholly straw colored above; a dark oblong spot each side on the pronotum near the humeral angles; a dark spot in the hollow each side of the mesonotal X, and the 3, 4, 5, 6 and 7 abdominal segments with a black streak each side along the base. Beneath it is straw colored with the usual dark mark near the base of the abdomen. The legs are entirely pale. The insect seems to be mature." From the photograph and this description made independently and previous to the receipt of the type from the collection of the State College of Washington, it appears that the 1882 specimen is referable to *yakimaensis*. As in other *Okanagana*, this insect may occur in a darker form than here described.

***Okanagana mariposa* variety *oregonensis* new variety**

The species was described in the JOURNAL, NEW YORK ENTOMOLOGICAL SOCIETY for March, 1915, from Mariposa County, California, as largely black in color decorated with orange. It is a large narrow-winged insect expanding from 70 to 80 millimeters, with a broad head, the front of which is not prominent. The uncus is not hooked at the extremity as in *Okanagana simulata* from Southern California, which it otherwise resembles in size and color. The basal membranes of all of the wings in *mariposa* are orange in color, and the basal areas of the fore wings are opaque. While the different broods show slight color differences, they are on the whole remarkably uniform as shown by the 163 specimens in the writer's collection, found from Southern California to Oregon, as well as in Arizona and Utah.



O. mariposa var. *oregonensis*

Recently Mr. Arthur T. McClay sent a male and female of *mariposa* representing a color variety having the membranes of all of the wings greenish-white instead of orange. For this variety the name *oregonensis* is here proposed. The male type (Plate II, Fig. 8) and female allotype were collected at Oregon Caves, Oregon, June 7, 1938.

Variety *oregonensis* strongly resembles in color the smaller *Okanagana albibasalis* Wymore, described in the Pan Pacific

Entomologist, October, 1934, p. 167, and now known from Shasta County southward to Orange County, California. *Albibasalis* expands about 65 millimeters, the basal area of the fore wings is clear instead of opaque, and the wings are proportionately broader than in *mariposa* and its variety. The uncus in *mariposa* terminates rather bluntly (truncate), and the upper and lower surfaces are more parallel than in *albibasalis*.

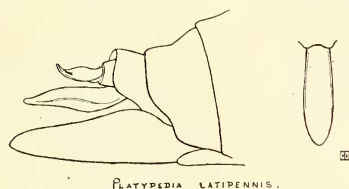
***Platypedia affinis* new species (Plate II, Fig. 10)**

Type male, Price, Carbon County, Utah, June, 1937 (C. E. Burt). Collection, U. S. National Museum.

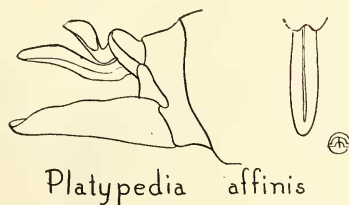
Resembles *Platypedia latipennis* Davis in size, in the blue color reflections of the body, and in having broad wings, but differs in the shape of the uncus and in several color characters.

Front of the head not very prominent; median sulcus well defined and centrally broadened on the face. The whiteish hairs on the body are numerous; the upper surface is nearly smooth except on the head and about the mesonotal X, while beneath the hairs are long and numerous. The fore wings have eight apical cells; are very broad, and have the costal nerve rather suddenly bent near the end of the radial cell. When viewed from in front the costal margin is seen to be wavy, suggesting an approach to *Neoplatypedia*. The uncus is considerably arched at the top, more so than in *latipennis*, and with the dorsal line rather suddenly bent downward near the extremity. The lower line of the uncus is more parallel to the upper surface than in *latipennis*, and follows the curve of the arch except near the extremity.

General color blue black, with the lighter marks pale orange to straw color, instead of brilliant orange-red as in *latipennis*. Fore femora entirely black, except the extremities, which are straw color; middle and hind femora black above, and pale beneath. The pronotum has a central pale line joining the



PLATYPEDIA LATIPENNIS.



Platypedia affinis

straw colored front margin, and the hind margin or collar is more broadly pale in color. The hind margin of the mesonotum is pale each side of the black X. Metanotum edged with pale orange. Tergum shining blue black. Uncus black with an inconspicuous pale dorsal line; valve black. Costal margin of the broad fore wings pale to end of radial area; the venation of the fore wings otherwise darker or fuscous. Membranes at base of fore wings pale orange; at base of hind wings much paler. In *affinis* the venation of the hind wings is straw color except the marginal vein; in *latipennis* it is red except the darker marginal vein. In *Platypedia barbata*, which also has broad wings, the body is more hairy, and has brassy reflections instead of blue.

The figure of the genitalia of *Platypedia latipennis* is here reproduced for comparison from the JOURNAL, NEW YORK ENTOMOLOGICAL SOCIETY, March, 1921.

MEASUREMENTS IN MILLIMETERS

	Male Type
Length of body	18
Width of head across eyes	5
Expanse of fore wings	41
Greatest width of fore wing	8.5
Length of valve	4

A paratype collected at the same place and time as the type, is in the writer's collection, and is like the type. The right eye unfortunately has been damaged which makes the head appear narrower than in the type.

PLATE II

- Figure 1. *Fidicina compostela* Davis, 1934. Type.
- Figure 2. *Fidicina panamensis*. Type.
- Figure 3. *Uhleroides mæstra*. Type.
- Figure 4. *Uhleroides hispaniolæ*. Type.
- Figure 5. *Uhleroides samanæ*. Type.
- Figure 6. *Ollanta caicosensis*. Type.
- Figure 7. *Okanagana yakimaensis*. Type.
- Figure 8. *Okanagana mariposa* var. *oregonensis*. Type.
- Figure 9. *Psallodia espinii*. Uhler.
- Figure 10. *Platypedia affinis*. Type.